

## Doctors' and nurses' attitudes towards and experiences of voluntary euthanasia: survey of members of the Japanese Association of Palliative Medicine

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### Abstract

**Objective**—To demonstrate Japanese doctors' and nurses' attitudes towards and practices of voluntary euthanasia (VE) and to compare their attitudes and practices in this regard.

**Design**—Postal survey, conducted between October and December 1999, using a self-administered questionnaire.

**Participants**—All doctor members and nurse members of the Japanese Association of Palliative Medicine.

**Main outcome measure**—Doctors' and nurses' attitude towards and practices of VE.

**Results**—We received 366 completed questionnaires from 642 doctors surveyed (response rate, 58%) and 145 from 217 nurses surveyed (68%). A total of 54% (95% confidence interval (CI): 49-59) of the responding doctors and 53% (CI: 45-61) of the responding nurses had been asked by patients to hasten death, of whom 5% (CI: 2-8) of the former and none of the latter had taken active steps to bring about death. Although 88% (CI: 83-92) of the doctors and 85% (CI: 77-93) of the nurses answered that a patient's request to hasten death can sometimes be rational, only 33% (CI: 28-38) and 23% (CI: 16-30) respectively regarded VE as ethically right and 22% (CI: 18-36) and 15% (CI: 8-20) respectively would practise VE if it were legal. Logistic regression model analysis showed that the respondents' profession was not a statistically independent factor predicting his or her response to any question regarding attitudes towards VE.

**Conclusions**—A minority of responding doctors and nurses thought VE was ethically or legally acceptable. There seems no significant difference in attitudes towards VE between the doctors and nurses. However, only doctors had practised VE.

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**Keywords:** Euthanasia; Japan; doctors; nurses; palliative care

### Introduction

Attitudes towards the ethics and legality of physician-assisted death, especially voluntary euthanasia (VE), have gradually been changing over

the past decade. Some countries and states, including the Netherlands and the US state of Oregon, have begun to accept VE and/or physician-assisted suicide. The Northern Territory of Australia also legalised VE and assisted suicide in 1996 but the federal government overrode the legislation in 1997.<sup>1-3</sup> Japan is not an exception. One of the district courts in Japan in 1995 determined that there were four criteria for legally permissible VE although no higher court has discussed this particular issue so far. According to these four criteria: the patient must suffer from unbearable physical pain; the death of the patient must be unavoidable and imminent; all possible palliative care must have been given and no alternatives to alleviate the patient's suffering must exist, and the patient must explicitly request doctors to help him or her to hasten their death.<sup>4</sup> At the same time, however, Japan's criminal law explicitly prohibits both assisted suicide and killing another at their request to do so (article 202).<sup>5</sup> So far the Japanese Supreme Court has not yet ruled on a case where all of the above four criteria are met. Furthermore, some Japanese researchers have argued that the practice of VE is regarded as illegal by the current Japanese legal system.<sup>6</sup> Thus, uncertainty and ambiguity with regard to the legality of practising VE remains in this country.

So, in these circumstances, do Japanese medical practitioners ethically or legally agree or disagree with the practice of VE by a doctor? Extensive literature reviews of studies or surveys conducted in Japan regarding VE using MEDLINE, BIOETHICS LINE, and JAPANA CENTRA REVUO MEDICINA resulted in retrieval of four surveys regarding end-of-life decisions (see table 1). In those surveys, between 0% and 73% of responding doctors and between 0.4% and 88% of responding nurses answered that they would approve of VE or thought that there were some situations in which VE was justified.<sup>4-9</sup> It should also be noted that these previous studies showed that similarities and differences in the attitudes of doctors and nurses towards VE varied.<sup>7-8</sup> None of the four systematically focused on the problems concerning VE and three asked only one question regarding VE. Only

one asked doctors and nurses about their experience with or practice of VE. The survey by Sakamoto and Kitazawa reported that 16% of the respondents said they had been asked by a patient to hasten his or her death.<sup>4</sup> The response rate for Chiyo's survey<sup>7</sup> was unknown and total number of respondents was small. The response rate for Sakamoto's study was also low.<sup>4</sup> The largest study, by Miyashita and others, was conducted nationwide with well-designed random sampling methods and the reported results should therefore be the most reliable.<sup>8</sup> However, the question asked about euthanasia was not explicit enough. The question: "Would you approve of directly hastening a patient's death to relieve his or her pain and make the patient comfortable?" was asked without mentioning the patient's competency and whether or not there was an explicit patient request for VE. The definition of euthanasia used in the question was obscure and the act of euthanasia could be interpreted as non-voluntary or involuntary. Thus, as a question aimed at investigating the issues concerning VE, it was unsatisfactory.

Thus, at this moment, we can neither judge to what extent Japanese doctors and nurses would ethically or legally accept the practice of VE nor know what is actually going on in this regard. Therefore, we conducted a questionnaire survey of Japanese doctors and nurses about VE, covering attitudes of medical practitioners towards actively hastening death; to what extent the terminally ill or incurably ill actually request their caregiver to help hasten their death, and how often the medical practitioners comply with such requests in this country. We decided to survey doctor and nurse members of a society that has devoted itself to the study and improvement of palliative care because they are

most likely to be involved in medical care for terminally ill or incurably ill patients in Japan. In our survey, we used a modified version of a comprehensive questionnaire about VE developed by Kuhse and Singer and used in Victoria in 1987<sup>10</sup>; amended questionnaires based on the Kuhse/Singer one have since been used in two other surveys conducted in Australia.<sup>11,12</sup> This is because the questionnaire developed by the two philosophers explicitly and clearly addresses the issues of VE and asks about the ethical and legal validity of VE. In addition, the questionnaire asks respondents: why patients ask for VE; with whom health care workers would discuss a request for VE; how much they know about VE in the Netherlands, and about their actual experience with the practice of VE. We believe that our survey could be the first comprehensive study of VE in Japan.

## Methods and designs

### QUESTIONNAIRE

An original questionnaire in English, developed and used for a survey of Australian doctors by Kuhse and Singer was first translated into Japanese by the Japanese authors and modified to produce a Japanese version of the questionnaire which could be used for both doctors and nurses. A native English speaker living in Japan translated it back into English. The back-translated English questionnaire was reviewed by one of the original authors (Kuhse H) and evaluated. Following suggestions from her, the Japanese questionnaire was revised and finalised. Three questions regarding patients' requests for VE and family's wishes that this not be done, were added and the order of questions (but not the

Table 1 Review of the existing literature on attitudes relevant to euthanasia

	Number of respondents	Response rate	Question asked	% of Yes
<b>1. Medical Doctors</b>				
Chiyo, <i>et al</i> , 1993 <sup>7</sup>	21 ICU* doctors and 22 general practitioners	Not reported	Would you approve of VE†‡	73% and 57% respectively
Sakamoto, <i>et al</i> , 1996 <sup>4</sup>	273 clinicians who were subscribers to a journal	27% (273/1000)	Would you approve of VE when four criteria‡ are met?	10%
Asai, <i>et al</i> , 1998 <sup>9</sup>	339 internist members of the Japan Society of Cancer Therapy	68% (339/498)	Would you approve of VE?	21% (there are some situations in which VE is justified) 4% (ethically acceptable)
Miyashita, <i>et al</i> , 1999 <sup>8</sup>	1059 doctors working at hospitals, 466 at clinics, and 52 palliative care specialists	51% (1577/3104)	Would you approve of directly hastening patient's death to relieve his or her pain?	0.4% of doctors at hospital, 1.8% at clinics, and 0% of palliative care physicians
<b>2. Nurses</b>				
Chiyo, <i>et al</i> , 1993 <sup>7</sup>	45 ICU nurses and 52 general ward nurses	Not reported	Would you approve of VE?	72% and 88% respectively
Miyashita, <i>et al</i> , 1999 <sup>8</sup>	2190 nurses working at hospitals, 425 at clinics, 394 palliative care nurses, and 352 home care nurses	56% (3361/6059)	Would you approve of directly hastening patient's death to relieve his or her pain?	1.5% of nurses working at hospitals, 2.6% at clinics, 1.2% of palliative care nurses, 0.4% of home care nurse

\*ICU: Intensive Care Units.

†VE: precipitating the advent of death of a competent patient who is suffering uncontrollably and explicitly wishes to terminate his or her life by direct interference by the physician, for example, by the injection of a lethal drug.

‡Four criteria: the patient must suffer from unbearable physical pain; the death of the patient must be unavoidable and imminent; all possible palliative care must have been given and no alternatives to alleviate the patient's suffering must exist; the patient must explicitly request doctors to help him or her hasten their death.

Table 2 Characteristics of respondents

	Doctors	Nurses
Total number	366	145
Response rate	57%	68%
Age +/- SD (Range)	49 +/- 10* 29-90	43 +/- 9 28-63
Religions		
None	226 (62%)	105 (73%)
Buddhist	75 (21%)	21 (12%)
Christian	45 (12%)	12 (8%)
Shinto	3 (1%)	0 (0%)
Other	7 (2%)	2 (1%)
Sexes		
Female	21 (6%)*	138 (95%)
Male	343 (94%)*	4 (3%)
Currently involved in clinical work	348 (95%)*	102 (70%)
Experience of caring for terminal or incurable patients older than 12	361 (99%)	137 (98%)

\*P<0.05.

questions themselves) was changed. Our questionnaire comprised 25 questions. We asked our subjects about their attitudes towards and experiences of VE and about their personal and professional backgrounds.

#### SUBJECTS

A postal survey was conducted between October and December 1999. An initial mailing was sent to all 659 doctors and 244 nurses listed in the members' list (published in 1996) of the Japanese Association of Palliative Medicine. After four weeks, a reminder card was sent to all subjects.

#### STATISTICAL ANALYSIS

Unpaired t tests were undergone to analyze numerical variables and 95% confidence intervals were calculated for each proportion. The  $\chi$ -square test for independence was used to test differences in proportions among independent categorical variables. A p value of less than 0.05 was considered significant. A logistic regression model was used when univariate analysis revealed statistically significant relations between independent variables (age, sex, current clinical practice, religion) and respondents' answers so that we could confirm that a respondent's profession was an independent predictor for respondents' attitudes and practices.

#### Results

A total of 366 doctors and 145 nurses returned completed questionnaires; 12 questionnaires from the former and 27 from the latter were returned because of out of date addresses. The response rate for doctors was 57% (366/647) and 68% (145/217) for nurses. Characteristics of responding doctors and nurses are shown in table 2.

Table 3 shows comparisons of answers in the affirmative to questions regarding VE between doctors and nurses. In terms of attitudes towards VE, there seem to be no statistically significant differences in almost all questions except on one issue. Table 4 compares these to results from two previous Australian surveys on doctors.<sup>10 11</sup> The majority of the doctors and nurses were aware of the Dutch

Table 3 Comparison of answers in the affirmative to questions relating to voluntary euthanasia (VE) % of yes (95% confidence interval)

	Doctors (n=366)	Nurses (n=145)	Victoria* (354)	NSW/ACT† (588)
<i>For all respondents</i>				
Do your colleagues practise VE?	9 (1-17)	0	51	52
Is VE sometimes right?	33 (28-38)	23 (16-30)	62	59
Are you aware of the Netherlands' situation?	80 (76-84)	77 (70-84)	49	NA
Should the Netherlands situation be introduced here?	26 (21-31)	21 (14-28)	59	59
Should medical or nursing organisations approve VE?	22 (18-26)	15 (9-21)	52‡	52‡
Should the law be changed to allow VE?	26 (21-31)	14 (8-20)	60	58
Would you practise VE if it were legal?	22 (18-26)	14 (8-20)	50	50
Has a patient ever asked you to hasten his or her death?	54 (49-59)	53 (45-61)	40	47
Have you ever had a case in which a patient under your care expressed a desire for active euthanasia, but in the same case the family opposed that wish?	20 (16-24)	22 (15-29)	NA	NA
<i>Of those who have been asked to hasten death</i>				
Can you identify particular illnesses that may prompt patients to ask that their death be hastened?	49 (42-56)	56 (46-66)	NA	80
If a patient asks you to hasten his or her death, do you discuss what should be done with:				
A colleague	82 (77-87)	93 (87-99)	67	75
Other health care professional	87 (82-92)	95 (90-100)	70	64
A family member, relative or very close friend of the patient?	90 (86-94)	93 (87-99)	75	79
A religious counsellor?	16 (11-21)	28 (19-37)	26	33
Can patient's asking to hasten his or her death sometimes be rational?	88 (83-92)	85 (77-93)	93	96

\*Doctors surveyed in 1987 in Victoria, Australia (reference 10).

†Doctors surveyed in 1993 in NSW/ACT, Australia (reference 11).

NA: Not applicable.

‡The question asked was "Should your professional organisation approve VE".

approach to voluntary euthanasia and approximately one-fifth of both professionals had favourable attitudes towards VE. Univariate analysis showed that significantly more doctors than nurses thought the law in Japan should be changed to allow VE. There was no difference between the two groups as to the frequency of being asked to hasten death by patients: half of the doctors and half of the nurses had been asked to hasten death by their patients.

The majority of doctor respondents (77%, 95% confidence interval (CI): 73–81%) and nurse respondents (85%, 95% CI: 79–91%) answered that their view regarding the morality of VE was based primarily on secular ethical principles while only 5% (95% CI: 3–7%) of the former and 3% (95% CI: 0–6%) of the latter based their view on ethical principles derived from religious views. One of the questions asked the respondents to rank several different reasons why they were asked to hasten death. “Persistent and irreversible pain” was ranked first, most often followed by “terminal illness”, and “incurable condition”. There were no significant differences between the doctors and nurses in this regard, either. On the other hand, as for practising VE, no nurse respondents had ever taken active steps to bring about the death of a patient who asked them to hasten death, while 5% of doctor respondents reported that they had done so.

Logistic regression model analysis was used to verify the difference between the doctors and the nurses in attitudes regarding changing the law to allow VE. It revealed that the respondent’s age was the only independent factor to make a significant difference ( $p=0.034$ ,  $R=0.07$ ) and that respondent’s profession was not an independent predictor.

## Discussion

Our reviews of the literature found that pain control based on the *Guidelines on Relief of Cancer Pain* proposed by the World Health Organization can eliminate the pain of between 70% and 100% of cancer patients.<sup>13</sup> It has also been suggested that even if palliative strategies based on these guidelines failed,

other treatments such as radiation therapy, psychotherapy and psychiatric treatments, or even epidural blockage would liberate almost all patients from irreversible pain.<sup>14</sup> Such findings suggest that the best palliative care can effectively eliminate pain and suffering for most patients. This suggests that if the only reason that patients asked their doctors to actively hasten death was their pain, no, or very few, patients would wish for VE. However, it has been often indicated that patients request VE for reasons of loss of dignity, being dependent on others and tiredness of life, as well as pain. Concerns about loss of control, functional disability, and being a burden were accorded greater importance by laypersons than by doctors.<sup>2, 15, 16</sup> Therefore, the existence of a perfect service and complete access to it would be unlikely to remove the desire on the part of some individuals for their life to end sooner rather than later and would not eliminate all rational and persistent requests for VE, nor the importance of discussing VE.<sup>17</sup>

Under these circumstances, the results raise three important questions. The first question raised is what implications the rates of doctors and nurses who ethically accept the practice of VE have for current Japanese clinical settings. To answer this, it is essential to refer to the attitudes towards VE of Japanese patients and of the general population. Although so far no study in Japan has asked actual patients about their attitudes towards VE, two nationwide surveys asked randomly sampled members of the general public about their attitudes towards VE.<sup>7, 18</sup> These large national studies revealed that slightly more than one-tenth of the Japanese general public would want their doctors to actively hasten death when they were terminally ill and experiencing irreversible and uncontrollable pain. This suggests that some terminally ill or irreversibly ill patients might request their caregivers to help hasten death if palliative and supportive care failed to alleviate their suffering and again, as mentioned above, perfect palliative care might not be able to remove the desire on the part of some individuals for physician-assisted death.

Table 4 Comparison of answers in the affirmative to questions relating to experiences of voluntary euthanasia (VE) % of yes (95% confidence interval)

Of those who have been asked to hasten death	Doctors (n=195)	Nurses (n=75)	Victoria*	NSW/ACT†
Have you ever taken active steps to bring about the death of a patient who asked you to do so?	5 (2–8)	0	29	28
If yes, has it happened more than once? (n=9)‡	67 (37–97)	0	80	81
If yes, do you still feel you did the right thing? (n=9)‡	89 (69–100)	0	98	93
If no, did you reject the patient’s request for voluntary euthanasia due to the illegality of the action?	55 (48–62)	61 (51–71)	65	52
In your experience, when a patient under your care expressed a desire for active euthanasia, but the family opposed that wish, have you ever taken active measures to terminate the patient’s life? (N=74)§	1 (0–3)	0	NA	NA

\*Doctors surveyed in 1987 in Victoria, Australia (reference 10).

†Doctors surveyed in 1993 in NSW/ACT, Australia (reference 11).

‡Nine doctors answered this question and % of yes and 95% confidence interval was calculated based on 9 as a total number.

§Seventy-four answered this question and % of yes and 95% confidence interval was calculated based on 74 as a total number.

NA: Not applicable.



Our current study suggests that approximately half of the doctors and half of the nurses have been asked by patients for assistance to hasten death and Sakamoto and Kitazawa also reported that 16% of the responding doctors answered that a patient had asked them to hasten his or her death.<sup>4</sup> Therefore, it can be argued that if the law allowed doctors and nurses to practise VE and some of them were willing to do so, it might be possible that the wishes of patients who were seriously distressed by loss of dignity, and/or loss of control, and who were incapable of independently terminating their life might, in certain circumstances, have their wish for VE granted. On the other hand, if the Japanese law remains ambiguous, the ratio of doctors and nurses who would otherwise be willing to help patients who wish for VE could decrease. Our results suggest that about 20% of our doctor respondents were willing to perform the act if requested, while 5% reported they had actually done so. Chiyo *et al* suggested that more than 70% of intensive care unit (ICU) doctors and ICU nurses approved of VE and Asai *et al* also showed that one in five Japanese oncologists surveyed thought there were some situations in which VE was justified.<sup>4,8</sup> Therefore, we need to discuss more seriously whether or not VE should be legally permissible, taking into consideration what really makes killing wrong and the priority of quality of life and the sanctity of life, and why people sometimes wish for death. We think that good palliative care and psychological support should be regarded and provided as the first choice, but VE could also be considered as a final option for those whose clinical condition or psychological make up leads them to decide life is no longer worth living.<sup>17</sup>

### Unwanted interventions

The second question that deserves notice is whether our results showing no differences on the issues of VE among responding doctors and nurses are correct. This tendency was suggested in the fore-mentioned surveys regarding terminal care.<sup>6,7</sup> The same two studies also indicated that attitudes of Japanese doctors and nurses towards withholding and/or withdrawing life-sustaining treatments from terminally ill patients did not differ between the two groups, while the proportion of those who supported foregoing life-prolongation was significantly higher than those who accept VE. Such similarity is not, however, consistent with several previous studies of Japanese nurses. They indicated that Japanese nurses are often unconvinced of and dissatisfied with doctors' aggressive treatment of patients at the end of life, and that the nurses felt that the doctors failed to respect patient autonomy by ignoring the patient's wish not to undergo life-sustaining treatments. It has also been pointed out by nurses that Japanese doctors are paternalistic and often force patients to undergo various unwanted interventions.<sup>19-23</sup> To the best of our knowledge, there has been no other comparative study which directly investigates the similarities and differences in attitudes between doctors and nurses

towards various end-of-life decisions than the two studies mentioned. Therefore, it is uncertain whether Japanese doctors and nurses have common attitudes towards terminal care in general and "death with dignity" in particular.

As for VE, it is unlikely that the similarity in attitudes of the doctors and nurses presented in our study occurred by chance. This is because the ratio of affirmative answers of responding doctors and nurses was not significantly different for virtually all the questions we asked, despite the fact that their demographics did differ. In addition, the two groups of health care practitioners in Japan seem to share not only ethical attitudes towards VE but also towards the legalisation of VE and the perception of patients' rationality who request that death be hastened. Thus, it is likely that the same proportion of Japanese doctors and nurses have similar, consistent, and negative attitudes towards VE: it is suggested that Japanese health care practitioners who support VE ethically and/or legally are in the minority.

### Status of nursing

The current study suggests that no nurse respondent has practised VE. We believe that this result does not reflect the nurses' attitudes towards VE, but, rather, the status of nursing and nurses' current professional roles in Japanese clinical settings. First, Japanese nurses are rarely engaged in directly administering medication or operating medical equipment. For example, it is very rare for Japanese nurses to give a bolus of drugs through an intravenous line even on a doctor's orders. It is also very uncommon for them to manipulate ventilators alone. Treatment plans are usually determined solely by doctors and it is very rare for nurses to make independent medical decisions. It is also pointed out that within nursing and between doctors, there is a rigid hierarchy and nursing is often considered subordinate to medicine.<sup>24</sup> Thus, in reality, even if a nurse thought that she should practise VE, it would be practically impossible for her or him to do so.

Finally it is necessary to consider whether or not legalising VE would be good for Japanese society as a whole. This is because it is one thing to say that legalising VE might be good for some patients whose clinical condition or psychological make up leads them to decide life is no longer worth living, but to claim that legalising VE is good for society is quite another. In the Netherlands, VE has been practised with increasing openness and accepted socially for more than a decade and, in April 2001, it was made completely legal. It is reported that in the Netherlands, people are basically individualistic and respect for autonomy and the right to know have been highly prized and completely guaranteed in health care. Medical information such as diagnosis and prognosis of cancer and efficacy of treatments, as well as the issues of euthanasia have been openly communicated to patients and discussed explicitly with doctors. People there have a

general practitioner and the doctor-patient relationship is equal. The act of VE is considered one of the medical means of respecting human dignity.<sup>13</sup>

On the other hand, interdependence and harmony have great significance as social values in Japan and it is asserted that a person does not exist as an individual, that is, as an autonomous unit, but only as a member of the family, the community, or society.<sup>24-25</sup> The Japanese also tend to accept hierarchical human relations and are sometimes willing to follow decisions or recommendations given by authorities such as doctors. The doctor-patient relationship can be called paternalistic in many cases; informed consent and advance directives have not yet been well established and vitally important medical information is not always fully disclosed because a considerable number of doctors and patient families think that truth-telling harms patients.<sup>26-27</sup> Patients' wishes or advance directives about death with dignity may frequently be disregarded and the foregoing of life support is sometimes perceived as abandonment of the dying patient by the family or the doctors in charge.<sup>8-28</sup> Furthermore, it should be noted that the two euthanasia cases which were brought to light in the 1990s in Japan were not VE; ie, the doctors injected lethal medication into unconscious patients with no explicit patient request, while in one case the doctor did so at the patient's family's request.<sup>5-13</sup>

### Double standard

Given these circumstances in Japan, would legalising VE be good for Japanese society? Certainly, it would raise the possibility that a patient's wish for VE might not be voluntary. Once VE is legalised and society gives people the choice of dying faster, patients dependent on others could feel compelled to request VE, thinking that people should not cause trouble to others. A doctor who believes that the patient would be better off dead might try to manipulate the patient and lead him or her to choose VE. The compassionate family could do the same. Furthermore, a patient's wish for VE which is not based on a full understanding of the medical situation cannot be considered reliable or authentic. On the other hand, it can be argued that such manipulation and indirect coercion imposed on Japanese patients by others could also occur without the legalisation of VE. For example, a patient may be forced to deny effective life-sustaining treatment and choose earlier death as a result of undue pressure from her family or doctor even now. In addition, as far as we know, the basic attitudes of the majority of Japanese doctors remain "pro-life" and doctors' paternalism is likely to lead them to treat the patient more aggressively, not less.<sup>8-29</sup> It has also been reported that some Japanese doctors and patient families tend to think that they themselves would want to die without aggressive life-sustaining treatment but that they would want their patients or family members to survive as long as possible.<sup>18-28</sup> Such a double standard, biased as it is towards aggressive life-prolongation, would also make forced euthanasia unlikely. It is our opinion that, as long as the law does not explicitly regulate the

act of VE, it will remain clandestine without any system for reporting or registering cases. Criteria for patients and due procedures will remain unclear and opaque, while the risk of abuse cannot be ruled out. Therefore, in order to guarantee a patient's freedom and autonomy, to make every step of the procedure transparent, and to prevent abuse, Japan ought to establish legal regulations for informed consent, truth-telling and various end-of-life interventions, including VE. In order to establish and enforce stringent safeguards on behalf of patients, the law regarding VE should include clear eligibility criteria; requirement of evidence that the patient has made the request free from coercion and pressure from others; the witnessing and reporting of the request, and guidelines as to the role of doctors. Furthermore, the law should guarantee that doctors' participation must be entirely voluntary and any legislation giving legal effect to VE would have to make this clear.<sup>30</sup> This is because our results as well as three of the four previous studies conducted in Japan have suggested that the majority of Japanese doctors and nurses consider VE morally unacceptable and their ethical convictions should not be violated by compulsory legislation.<sup>4-7-8</sup>

### Several limitations

This study has several limitations. The response rates were 58% for doctors and 68% for nurses and like most questionnaire surveys our results cannot avoid non-respondent bias. The results would be more reliable if the response rate, especially that of doctors, was higher. It should also be noted that the results demonstrated by our current study may not represent other doctors or nurses who are not involved in palliative care in Japan. We conducted the survey presented here on doctors and nurses who belong to the Japanese Association of Palliative Medicine, which understandably raises concerns regarding selection bias. Results of existing studies comparing attitudes of health care professionals in palliative care towards VE with attitudes of other doctors and nurses outside palliative care seem to be inconclusive. On the one hand, members of the palliative care movement, including doctors and nurses, have been allegedly prominent in offering various objections to VE and are regarded as the obvious anti-euthanasia lobby.<sup>17</sup> It has also been reported that physicians in a certain specialty such as palliative care appear to be less willing to participate in VE and assisted suicide than those in other specialties.<sup>31</sup> One study focusing on the relation between VE and nurses' backgrounds showed that palliative care nurses were the only subgroup with a majority which was not in favour of VE.<sup>32</sup> On the other hand, one study published in 1996 showed that the attitudes of physicians practising palliative care were not different from those reported by previous studies which investigated the attitudes of other health professionals.<sup>33</sup> Another study in 1997 also showed that medical practitioners' responses to end-of-life decisions, including VE, were unrelated to their experiences with palliative care.<sup>15</sup> Therefore, it seems prudent to conclude that it is difficult

to generalise about physicians' and nurses' opinions with regard to VE on the basis of palliative care workers in Japan. It should be noted that if the results presented by previous studies conducted in Japan revealed the truth regarding attitudes of Japanese medical professionals regarding VE, area of specialty would be related to differences in attitudes in this regard.

In conclusion, our current study suggests: that approximately from one-fifth to one-fourth of Japanese doctors and nurses we surveyed would practise VE if it were legal and reported positive attitudes towards VE; that only doctors had practised VE for their patients, and that virtually no differences in attitudes towards VE existed between responding doctors and nurses.

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